



Arch Chemicals, Inc.

MATERIAL SAFETY DATA

FOR ANY EMERGENCY, CALL 24 HOURS/7 DAYS:	1-800-654-6911
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300
FOR ALL MSDS QUESTIONS & REQUESTS, CALL MSDS CONTROL:	1-800-511-MSDS

PRODUCT NAME: HTH® FILTER CLEANER

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 12-20-2001 SUPERCEDES: None
MSDS NO: 02147-9001 - 66504

MANUFACTURER: Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204

SYNONYMS: None
CHEMICAL FAMILY: Organic aqueous solution
FORMULA: Not Applicable/Mixture
USE DESCRIPTION: Filter cleaner
OSHA HAZARD CLASSIFICATION: Skin, eye and respiratory irritant

PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Citric acid
CAS NUMBER: 77-92-9
PERCENTAGE RANGE: 1-6%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: 2-Butoxy ethanol
CAS NUMBER: 111-76-2
PERCENTAGE RANGE: 5-10%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS:

	OSHA (PEL)	ACGIH (TLV)
	ppm mg/cubic-meter	ppm mg/cubic-meter
TWA:	50 (skin)	20 (skin)
CEILING:	None	None
STEL:	None	None

CAS or CHEMICAL NAME: Phosphonic acid, (1-hydroxyethylidene)bis
CAS NUMBER: 2809-21-4
PERCENTAGE RANGE: 5-10
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl-omega-Hydroxy)
CAS NUMBER: 9016-45-9
PERCENTAGE RANGE: 5-10%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Water
CAS NUMBER: 7732-18-5
PERCENTAGE RANGE: Remainder to 100%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

SECTION 3 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER. AVOID BREATHING MIST OR VAPOR.

STORAGE CONDITIONS:

STORE IN A COOL, DRY, WELL VENTILATED PLACE.

PRODUCT STABILITY AND COMPATIBILITY

SHELF LIFE LIMITATIONS: No Data

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: See Section 7

SECTION 4 PHYSICAL DATA

APPEARANCE: Clear liquid
FREEZING POINT: 0 Deg.C (32 Deg.F)
BOILING POINT: 102 Deg.C (215 Deg.F)
DECOMPOSITION TEMPERATURE: No Data
SPECIFIC GRAVITY: 1.138
BULK DENSITY: 1.138 (g/cc)
pH @ 25 DEG.C: 1-3
VAPOR PRESSURE @ 25 DEG.C: 17
SOLUBILITY IN WATER: Completely soluble
VOLATILES, PERCENT BY VOLUME: No Data
EVAPORATION RATE: Approximately 1 (Water=1)
VAPOR DENSITY: 0.6
MOLECULAR WEIGHT: Not Applicable/Mixture
ODOR: Heavy detergent odor
COEFFICIENT OF OIL/WATER DISTRIBUTION: No Data

SECTION 5 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION:

Respiratory protection not normally required. If vapors, mists or aerosols are generated or if exposures above the exposure limits are possible, wear a NIOSH approved respirator.

VENTILATION:

Local exhaust ventilation is recommended if vapors, mists or aerosols are generated or if exposures above the exposure limits are possible. Otherwise, use general exhaust ventilation.

SKIN AND EYE PROTECTIVE EQUIPMENT:

Wear impermeable gloves and chemical safety goggles.

Eye wash station and safety shower should be provided in the immediate work area.

EQUIPMENT SPECIFICATIONS (WHEN APPLICABLE):

RESPIRATOR TYPE: NIOSH approved respirator with organic vapor cartridges and a dust/mist pre-filter

PROTECTIVE CLOTHING TYPE (This includes: gloves, boots, apron, protective suit): Impervious

SECTION 6 FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:

EXPLOSIVE: No
FLAMMABLE: No
COMBUSTIBLE LIQUID: No
PYROPHORIC: No

FLASH POINT: None (aqueous solution)

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT
VOLUME IN AIR): LEL No Data UEL No Data

NFPA RATINGS:

Not Established

HMIS RATINGS:

Health: 2
Flammability: 0
Reactivity: 0

EXTINGUISHING MEDIA:

Not Applicable-Choose extinguishing media suitable for surrounding materials.

FIRE FIGHTING TECHNIQUES AND COMMENTS:

This material would not be expected to burn until all the water has boiled off. The remaining organic material would be ignitable.
Use water to cool containers exposed to fire.
See Section 11 for protective equipment for fire fighting.

SECTION 7 REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

TEMPERATURES ABOVE: Stable at normal temperatures

MECHANICAL SHOCK OR IMPACT: No

ELECTRICAL (STATIC) DISCHARGE: No

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Strong acids and alkalis, strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide oxides of phosphorous on thermal decomposition of dried material

SUMMARY OF REACTIVITY:

EXPLOSIVE: No
OXIDIZER: No
PYROPHORIC: No
ORGANIC PEROXIDE: No
WATER REACTIVE: No

SECTION 8 FIRST AID

EYES:

Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Call a physician at once.

SKIN:

Immediately flush with water for 15 minutes. Wash the contaminated skin with soap and water. If irritation develops, call a physician. If clothing comes in contact with the product, the clothing should be laundered before re-use.

INGESTION:

Immediately drink large quantities of water. DO NOT induce vomiting. Call a physician at once. DO NOT give anything

by mouth if the person is unconscious or if having convulsions.

INHALATION:

If person experiences nausea, headache or dizziness, person should stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen, keep the person warm and at rest. Call a physician. In the event that an individual inhales enough product to lose consciousness, person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all cases, ensure adequate ventilation and provide respiratory protection before the person returns to work.

SECTION 9 TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

Eye and skin contact, ingestion, and inhalation

WARNING STATEMENTS AND WARNING PROPERTIES:

MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION. DO NOT TAKE INTERNALLY.

HUMAN THRESHOLD RESPONSE DATA

ODOR THRESHOLD: No Data

IRRITATION THRESHOLD: No Data

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: The IDLH concentration has not been established for this product.

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE:

INHALATION

ACUTE:

If inhaled, may cause irritation to the mucous membranes and upper respiratory tract. Any irritation would be transient with no permanent damage expected.

CHRONIC:

There are no known or reported effects from chronic exposure.

SKIN

ACUTE:

Skin contact may produce irritation consisting of transient redness. This irritant effect would not be expected to result in permanent damage

CHRONIC:

There are no known or reported effects from repeated exposure to this product.

EYE

Contact with the eyes can cause moderate to severe irritation. Irritation would consist of redness, swelling and mucous discharge to the conjunctiva. If this product is not washed out and left in the eyes for an extended period of time, contact may cause impairment of vision and corneal damage.

INGESTION

ACUTE:

Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy or diarrhea.

CHRONIC:

There are no known or reported effects from chronic exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known or reported.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY:

None known or reported

ANIMAL TOXICOLOGY

ACUTE TOXICITY:

Inhalation LC 50: No data

Dermal LD 50: No data

Oral LD 50: No data

Irritation: May be a skin, mucous membrane and respiratory irritant.
May cause moderate to severe irritation to the eyes.

ACUTE TARGET ORGAN TOXICITY:

May cause skin, mucous membrane and respiratory tract irritation.

May cause moderate to severe irritation to the eyes.

Inhalation, ingestion or skin absorption of large quantities of 2-Butoxy ethanol has been shown to cause Central nervous system depression, red blood cell hemolysis and possible kidney damage. Due to the low concentration of 2-Butoxyethanol in this product, we would judge that these effects would not occur from exposure to this product.

CHRONIC TARGET ORGAN TOXICITY:

Prolonged or repeated eye contact may result in more severe irritation to the eyes. If this product is not washed out and left in the eyes for an extended period of time, it may result in impairment of vision or corneal damage.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY:

There are no known or reported effects on reproductive function or fetal development from exposure to this product.

2-Butoxy ethanol has been shown to produce embryoletality and fetotoxicity in laboratory animals only at high doses that resulted in significant toxic effect in the mother. If exposures are kept below the recommended exposure standard, exposure to this product will not pose a reproductive or developmental toxicity hazard.

CARCINOGENICITY:

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

MUTAGENICITY:

This product is not known or reported to be mutagenic.

2-Butoxy ethanol has been tested in a battery of mutagenicity assays, and it is considered to be non-mutagenic.

SECTION 10 TRANSPORTATION INFORMATION

MATERIAL REGULATED AS A HAZARDOUS MATERIAL/DANGEROUS GOOD

U.S. DOT (ROAD/RAIL): "CORROSIVE LIQUID, ACIDIC, ORGANIC, NOS
(HYDROXYETHANEDLPHOSPHONIC ACID), 8, UN3265, PGIII"

GLOBAL IMDG CODE (OCEAN): SAME AS ABOVE

GLOBAL IATA/ICAO (AIR): SAME AS ABOVE

HAZARD LABEL/PLACARDS: CORROSIVE

U.S. DOT REPORTABLE QUANTITY (RQ): NOT APPLICABLE

U.S. DOT & GLOBAL IMDG CODE MARINE POLLUTANT: NOT APPLICABLE
EMERGENCY GUIDE NO: 153

SPECIAL COMMENTS: PRODUCT TO SHIP UNDER U.S.DOT EXCEPTION "CONSUMER COMMODITY" AS OUTLINED IN U.S. DOT 49 CFR 173.154 (c). THE "CONSUMER COMMODITY" EXCEPTION ALLOWS RECLASSIFICATION OF MATERIAL AS AN ORM-D MATERIAL. THE "COMBINATION PACKAGES" ARE "PERFORMANCE ORIENTED PACKAGING" (POP) & UN SPECIFICATION MARKED.

11 SECTION 11 SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: This product is subject to a Reportable quantity with respect to 2-butoxy ethanol (glycol ether) RQs are subject to change and reference should be made to 40 CFR 302.4 for the current requirements.

SPILL MITIGATION PROCEDURES:

Evacuate all non-essential personnel. Hazardous concentrations in air may be found in local spill area. Stop source of spill as soon as possible and notify appropriate personnel.

AIR RELEASE: Vapors may be suppressed by the use of water fog.
Contain all liquid for treatment and/or disposal as a
(potential) hazardous waste.

WATER RELEASE: This material is miscible with water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

LAND SPILL: Create a dike or trench to contain materials. Spill materials May be absorbed using sand, clay or any suitable absorbant.
Do not place spill materials back in their original containers. Containerize and label all spill materials.
Decontaminate all clothing and the spill area using detergent and flush with large amounts of water.

SPILL RESIDUES:

Dispose of per guidelines under Section 12, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

In case of fire, use normal fire fighting equipment, including a NIOSH approved self-contained breathing apparatus (SCBA).

Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to: boots, gloves, splash-proof goggles and impervious clothing, i.e., chemically impermeable suit.

SECTION 12 WASTE DISPOSAL

If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D002.

If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly.

As a hazardous liquid waste, it must be disposed of in accordance with local, state and federal regulations in a permitted hazardous waste treatment, storage and disposal facility by treatment.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

SECTION 13 ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT:

The components of this product are listed on the Toxic Substances Control Act inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Immediate (Acute)

PHYSICAL:

None

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

This mixture or tradename product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

CHEMICALS LISTED ARE: 2-Butoxy ethanol (glycol ether)

SECTION 14 ADDITIONAL INFORMATION

MSDS REVISION STATUS: Revision to Section 10

SECTION 15 MAJOR REFERENCES

References are available upon request

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

Arch Chemicals, Inc.
MSDS Control
501 Merritt 7
PO Box 5204
Norwalk, CT 06856-5204